U.S. Patent Application Serial No. 09/695,944

## **IN THE SPECIFICATION:**

Amend the specification as follows:

Heading beginning on page 1, line 12 has been amended as follows:

DESCRIPTION OF RELATED ART INCLUDING INFORMATION DISCLOSED UNDER 37

CFR 1.97 AND 37 CFR 1.98

Heading beginning on page 3, line 25 has been amended as follows:

BRIEF SUMMARY OF THE INVENTION

Paragraph beginning on page 4, line 7 has been amended as follows:

To achieve the above object, the control system is provided in a hybrid vehicle of the present invention with a combustion engine (E) for outputting a driving force, an electric motor (M) for generating a force for assisting the output from the engine, depending on the driving conditions, a power storage unit (battery 22) for storing electric energy generated by the motor acting as a generator using the output from the engine and electric energy regenerated by the motor when the vehicle decelerates. The control apparatus comprises: an output assist determination device means (steps S122 and S135) for determining, based on a determination threshold value (the throttle assist trigger threshold value MTHAST, the air intake passage pressure assist trigger threshold value MAST, or the air intake passage pressure assist trigger threshold value MASTTH) as the standard, whether to assist the output from the engine by the

motor, depending on the driving condition of the vehicle; an air-fuel controller (FIECU 12) for changing the air-fuel ratio of the mixture, which is to be supplied to the engine, to a condition leaner or richer than the stoichiometric air-fuel ratio; a determination threshold value changer changing means (steps S251 and S301) for changing the determination threshold value, depending on whether the air-fuel ratio of the mixture is leaner or richer than the stoichiometric air-fuel ratio; and a determination threshold value change prohibiting device means (steps S254 and S304) for prohibiting the operation of the determination threshold value changer when the air-fuel controller changes the air-fuel ratio of the mixture from a condition leaner than the stoichiometric air-fuel ratio to a condition richer than the stoichiometric air-fuel ratio.

Paragraph beginning at page 5, line 3 has been amended as follows:

According to the above control system for a hybrid vehicle, even in the case where the air-fuel ratio of the air-fuel mixture supplied to the engine is temporarily set richer than the stoichiometric air-fuel ratio by the air-fuel ratio controller, for example, in order to recover the absorption capacity of NOx absorbent when the absorbent is degraded, because the determination threshold value change prohibiting device means forbids the operation of the determination threshold value change device, the determination threshold to be used for determining whether the electric motor assists the output of the engine remains unchanged. Therefore, the determination threshold for lean burn is continuously used in such a case, and it is possible to prevent a sudden change of driving state due to a change of the determination threshold, and the smoothness in driving vehicle can thereby be improved.

Paragraph beginning at page 5, line 14 has been amended as follows:

In a second aspect of the present invention, the control system for a hybrid vehicle further comprises a terminating device means for terminating the prohibition of the change of the determination threshold value change prohibiting device means is prohibiting the change of the determination threshold value, when the air-fuel ratio controller detects that the air-fuel ratio of the mixture is leaner than the stoichiometric air-fuel ratio, or when the prohibition of the change of the determination threshold value is maintained for a specified time.

Paragraph beginning at page 6, line 5 has been amended as follows:

In a third aspect of the present invention, the control system is provided in a hybrid vehicle with a combustion engine (E) for outputting a driving force, an electric motor (M) for generating a force for assisting the output from the engine, depending on the driving conditions, a power storage unit (battery 22) for storing electric energy generated by the motor acting as a generator using the output from the engine and electric energy regenerated by the motor when the vehicle decelerates. The control apparatus comprises: an output assist determination device means (steps S122 and S135) for determining, based on a determination threshold value (the throttle assist trigger threshold value MTHAST, the air intake passage pressure assist trigger threshold value MAST, or the air intake passage pressure assist trigger threshold value MASTTH) as the standard, whether to assist the output from the engine by the motor, depending on the driving condition of the vehicle; an air-fuel controller (FIECU 12) for changing the air-

fuel ratio of the mixture, which is to be supplied to the engine, to a condition leaner or richer than the stoichiometric air-fuel ratio; a determination threshold value changer changing means (steps S251 and S301) for changing the determination threshold value, depending on whether the airfuel ratio of the mixture is leaner or richer than the stoichiometric air-fuel ratio; an exhaust cleaner (40) having an oxygen concentration measurement device (S9), provided in an exhaust system of the engine, for measuring the oxygen concentration in the exhaust gas, and a nitrogen oxide reduction device (NOx absorption capacity 42) for absorbing nitrogen oxide in the exhaust gas when the oxygen concentration in the exhaust gas is high and for reducing the absorbed nitrogen oxide when the oxygen concentration in the exhaust gas is low; a reduction device means (FIECU 12 also performs this function) for setting the air-fuel ratio of the mixture to a condition richer than the stoichiometric air-fuel ratio so as to reduce the oxygen concentration in the exhaust gas, when the air-fuel ratio of the mixture, which is to be supplied to the engine, is leaner than the stoichiometric air-fuel ratio; and a determination threshold value change prohibiting device means (steps S254 and S304) for prohibiting the operation of the determination threshold value changer changing means when the reduction device changes the air-fuel ratio of the mixture from a condition leaner than the stoichiometric air-fuel ratio to a condition richer than the stoichiometric air-fuel ratio.

Paragraph beginning at page 7, line 20 has been amended as follows:

In a fourth aspect of the present invention, the control system for a hybrid vehicle according to claim 3 further comprises: a vehicle speed measuring device (vehicle speed sensor

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S1) for detecting the speed of the vehicle. The reduction device means sets the air-fuel ratio of the mixture to the condition richer than the stoichiometric air-fuel ratio so as to reduce the oxygen concentration in the exhaust gas at a time interval depending on the vehicle speed detected by the vehicle speed measuring device.

Paragraph beginning at page 8, line 1 has been amended as follows:

According to the fourth aspect of the present invention, because the degree of the deterioration of the nitrogen oxide reduction device means is indirectly determined based on the driving state of the vehicle, and rich-spiking is performed at a time interval depending on the vehicle speed detected by the vehicle speed measuring device, it is possible to set an appropriate frequency of the rich-spiking and to improve the smoothness in driving the vehicle.

Paragraph beginning at page 8, line 7 has been amended as follows:

In a fifth aspect of the present invention the control system for a hybrid vehicle further comprises a terminating device means (steps S256 and S306) for terminating the prohibition of the change of the determination threshold value while the determination threshold value change prohibiting device means prohibits the change of the determination threshold value, when the airfuel ratio controller detects that the air-fuel ratio of the mixture is leaner than the stoichiometric air-fuel ratio, or when the prohibition of the change of the determination threshold value is maintained for a specified time.

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Paragraph beginning at page 8, line 14 has been amended as follows:

According to the fifth aspect of the present invention, after the rich-spiking for setting the air-fuel ratio of the air-fuel mixture richer than the stoichiometric air-fuel ratio is performed so as to relatively decrease the oxygen concentration in the exhaust gas, when the air-fuel ratio is reset to a value leaner than the stoichiometric air-fuel ratio, or when a predetermined period of time has passed from the beginning of the prohibition of the threshold value change, the terminating device means determines that the air-fuel ratio control by the rich-spiking has been completed, and the terminating device means terminates the prohibition of the threshold value change.

Therefore, it is possible to automatically terminate the prohibition of the threshold value change.